

A NEW CYPRINID FISH OF THE GENUS *SALMOSTOMA* (SWAINSON)  
FROM A TROPICAL RESERVOIR OF SOUTH INDIA

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(With one text-figure)

**Key words:** *Salmostoma belachi*, cyprinid fish, taxonomy

A new fish species of the genus *Salmostoma* from a tropical reservoir of South India is described. A total of 14 species of *Salmostoma* are reported to occur in Indian waters. The new species described hereunder stands separate from all the hitherto described species. 10 meristic and 19 non-meristic characters have been measured and compared with those of known species to establish its distinct taxonomic status.

INTRODUCTION

A new fish species of the genus *Salmostoma* (Family: Cyprinidae; Subfamily: Cultrinae) inhabiting the Nelligudda reservoir, 35 km from Bangalore, South India is described. While surveying for ichthyofauna of the Nelligudda reservoir, well established populations of *Salmostoma* hitherto undescribed were recorded.

The genus *Salmostoma* was established by Swainson (1839) with *Cyprinus bacaila* Hamilton as the designated type. While revising this genus, Banarescu (1968) clarified the generic status of *Salmostoma vis-a-vis Chela* Hamilton and *Securicula* Gunther. Following Banarescu, Jayaram (1981) listed 10 species occurring in Indian waters. Recently, Srithar and Jayaram (1990) have described a new species, *Salmostoma longicauda*, from river Krishna of Dhom reservoir. Talwar and Jhingran (1991) have taxonomically listed 14 species occurring in

Indian waters. The new species described here stands significantly different from the hitherto known species of *Salmostoma* of Indian waters.

Ten specimens of the new species of either sex have been examined. The data on 10 meristic and 19 non-meristic characters were recorded and are presented in Table 1.

*Salmostoma belachi* sp. nov.

D II, 7; P I, 12; V I, 8; A III, 13 or 14; C 17 + 12; LL 86-89.

**Diagnosis:** A *Salmostoma* species with gill raker counts of 22-24, branched anal fin rays 13 or 14, and lateral line scale counts of 86-89 (see Table 2).

**Description:** Body compressed and elongated with minute scales. Dorsal profile nearly straight and round transversely. Ventral profile tapering and razor-like. Mouth upturned; symphyisial knob on lower jaw fitting right into upper jaw groove; no barbels. Lips thin, snout plain. Eyes placed superiorly in the anterior part of the head, visible from below the ventral surface of the head. Pectoral fins laterally inserted, with prolonged outer rays. Pelvic fins short, not reaching the anal fin. Anal fin long, not reaching the caudal fin when depressed. Gill rakers few,

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TABLE 1  
MORPHOMETRIC DATA OF *SALMOSTOMA BELACHI* SP. NOV. (N = 10)

Measurements	% Standard length			% Head length		
	Range	$\bar{x}$	SD	Range	$\bar{x}$	SD
Head length	20.24-24.41	22.30	1.31			
Pre-dorsal distance	58.02-64.88	63.00	2.25			
Pre-pelvic distance	48.33-53.49	50.70	1.95			
Pre-anal distance	66.38-70.69	68.84	1.17			
Distance from pectoral origin to pelvic origin	26.73-31.62	28.85	1.67			
Distance from pelvic origin to anal origin	18.40-20.58	19.66	0.78			
Distance from pectoral base to anus (length of body cavity)	45.15-50.00	46.62	1.61			
Length of caudal peduncle	15.34-18.02	16.38	0.80	65.34-84.85	73.30	5.66
Height of caudal peduncle	06.22-08.14	07.29	0.53	30.20-36.97	32.70	1.80
Body depth	16.53-20.00	17.79	1.01	74.87-87.27	79.88	4.30
Width of head				38.09-43.63	42.04	1.79
Height at occiput				63.20-68.65	66.89	2.00
Snout length				21.07-25.74	25.34	1.49
Width of mouth				20.47-28.71	24.24	2.74
Eye diameter				22.77-26.73	25.08	1.28
Inter-orbital width				22.70-28.71	24.82	1.56
Total length (mm) :	95.00-129.50 ( $\bar{x}$ 110.30 $\pm$ 9.30); Fork length (mm): 85.00-106.00 ( $\bar{x}$ 96.40 $\pm$ 6.50)					
Standard length (mm) :	81.50-98.00 ( $\bar{x}$ 88.70 $\pm$ 5.00); Head length (mm): 16.50-21.20 ( $\bar{x}$ 19.80 $\pm$ 1.40)					

TABLE 2  
TAXONOMIC FEATURES OF *SALMOSTOMA* SPECIES  
COMPARED WITH *S. BELACHI* SP. NOV.  
(FROM TALWAR AND JHINGRAN 1991)

Name of the species	LL scales	Branched anal fin rays	Gill rakers on first arch
<i>S. acinaces</i> (Val.)	42-46	14-17	12-22
<i>S. bacaila</i> (Ham.-Buch.)	86-110	10-13	17-21
<i>S. boopis</i> (Day)	39-42	12-14	15-20
<i>S. clupeioides</i> (Bloch)	78-93	11-12	24-29
<i>S. horai</i> (Silas)	76-85	15	17 or 18
<i>S. kardahiensis</i> Reddiah	$\pm$ 52	12	42-52
<i>S. novacula</i> (Val.)	79-95	14-17	76-94
<i>S. orissaensis</i> Banarescu	76-89	18-19	13
<i>S. phulo</i> (Ham.-Buch.)	99-112	17-19	13-16
<i>S. punjabensis</i> (Day)	82-92	14-16	17 or 18
<i>S. sardinella</i> (Val.)	47-53	16-19	15-22
<i>S. sladoni</i> (Day)	61-68	18-19	15-17
<i>S. untrachi</i> (Day)	59-63	14-15	15 or 16
<i>S. longicauda</i> *	51-70	13-16	58-76
<i>S. belachi</i> sp. nov.	86-89	13 or 14	22-24

\* Srithar & Jayaram (1990)

22-24 in the first gill arch and moderately long. Lateral line curved towards the ventral profile, reaching the base of the caudal fin. Caudal fin forked, unequal, with lower lobe longer than the upper one (Fig. 1).

Scale counts:

LL / Dorsal.....15½

LL / Pelvic.....2½ or 3½

LL / Anal.....3½ or 4½

Circumpeduncular.....25 or 27

**Colour:** Fresh specimens are bright silvery, with metallic green over the dorsal profile, while



Fig. 1: *Salmostoma belachi* holotype (semi-diagrammatic)

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formalin preserved specimens have a streak of grey running along the centre of the body and over the dorsal ridge; pale white below the lateral line.

**Distribution:** Nelligudda reservoir, Bidadi, Ramnagara Taluk, Bangalore dist., Karnataka, South India. Nelligudda reservoir is a perennial man-made lake constructed below the confluence of two seasonal streams, with a waterspread area of 80 ha at full reservoir level. The major fishery is contributed by the exotic cichlid *Oreochromis mossambicus*. *Salmostoma* are underexploited and occasionally appear in the catch when small

meshed gillnets (30 mm approx.) are operated in the open waters. On an average, the fish attains a length of 110 mm and weighs 5.5 g.

**Etymology:** The new species is named after the popular name *Belachi* meaning blanchéd, indicating the apparent colour of the species in vernacular (Kannada).

The type specimens of *S. belachi* are deposited at the Zoological Survey of India, Chennai (Madras), and also at the Zoological Museum of Department of Zoology, Bangalore University, Bangalore.

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